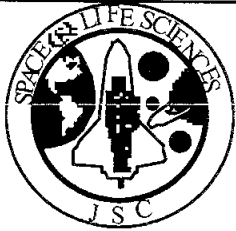


# **SPACE AND LIFE SCIENCES**



**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

**Date: November 19, 1999**

**STS-103  
Flight Readiness Review  
Space and Life Sciences Directorate**



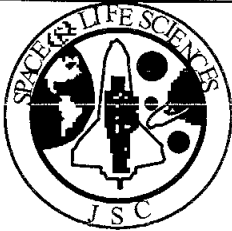
**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

**Date: November 19, 1999**

**STS-103 Space and Life Sciences Activities**

- **Crew Health**
- **DTO's/DSO's**
- **Operations Support**
- **Action Items**
- **Readiness Statement**



**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

**Date: November 19, 1999**

**Crew Health**

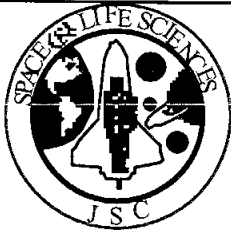
- **All Crew Physicals will be completed prior to flight**
  - **No problems or issues**
  - **Applicable flight rules are in place**

**US Flight Surgeon – Denise Baisden**

**US Deputy Flight Surgeon – Rainer Effenhauser**

**ESA Flight Surgeons\*        - Ulrich Straube**  
**- Volker Damann**

**\* Monitor Only – Not Console Qualified**



**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

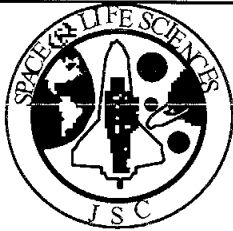
**Date: November 19, 1999**

**DTO's/DSO's**

- **The following DSO's have been manifested or scheduled for this flight**

**DSO 496 – Individual Susceptibility to Post Spaceflight  
Orthostatic Intolerance (post flight only)**

**DSO 498 - Spaceflight and Immune Function  
(pre-/postflight only)**



**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

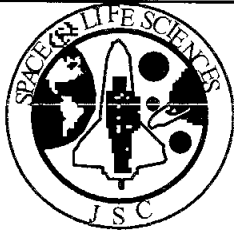
**Date: November 19, 1999**

**Operational Support**

**Mission Operations Support**

- **Flight Surgeon/Biomedical Engineer on-console support is ready**
- **Video Digital Analysis System (VDAS) Lab ready to support**
- **Micrometeoroid/Orbital Debris (MMOD) ready to support  
on call for contingency analysis**
- **Space Radiation Analysis Group (SRAG) ready to support**
- **Flight Projects Division stowage team ready to support**

**All Training and Flight procedures have been completed**



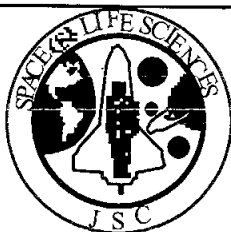
**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

**Date: November 19, 1999**

**Action Items**

- **There are no open action items.**
- **All remaining open work is planned and scheduled.**



**Space and Life Sciences Directorate  
Flight Readiness Review  
STS-103**

**D. R. Williams**

**Date: November 19, 1999**

The activities required to support Flight STS-103 have been accomplished except for open work identified. The Space and Life Sciences Directorate is ready to support Flight STS-103.

There are no constraints to proceeding with the planned Flight/STS-103 pending completion of scheduled open work.

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**W. A. Langdoc, Chief  
Flight Projects Division**

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**J. L. Robinson, Ph.D., Chief  
Program Integration Office**

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**G. McKay, Ph.D., Chief  
Earth Science & Solar System  
Exploration Division**

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**D. Dawson, M.D., Chief,  
Medical Sciences Division**

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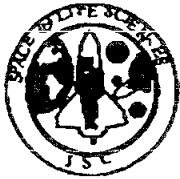
**R. W. Nygren, Associate Director,  
Space and Life Sciences Directorate**

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**C. M. Stegemoeller, Manager,  
Human Space & Life Sciences  
Program Office**

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**David R. Williams, M.D., Director  
Space and Life Sciences Directorate**



## Certificate of Flight Readiness

The activities required to support Flight STS-103 have been accomplished except for open work identified. The Space and Life Sciences Directorate is ready to support Flight STS-103.

There are no constraints to proceeding with the planned STS-103 Flight pending completion of scheduled open work.

W. A. Langdoc, Chief,  
Flight Projects Division

J. L. Robinson, Ph.D., Chief,  
Program Integration Office

for G. McKay, Ph.D., Chief, Earth  
Science & Solar System  
Exploration Division

D. Dawson, M.D., Chief,  
Medical Sciences Division

R. W. Nygren, Associate Director,  
Space and Life Sciences Directorate

C. M. Stegemoeller, Manager,  
Human Space & Life Sciences  
Program Office

Dave R. Williams, M.D., FCFP FRCP (C)  
Director, Space and Life Sciences Directorate